حمل الآن

مجانا وحصريا

المراجعة رقم (1)





Model (1)

5 Marks

1 (A) Choose the correct answer:

1. From the disadvantages of using windmills: ....

a) they are expensive.
b) sometimes the wind doesn't blow.
c) they are always available.
d) they are cheap.

2. Which of the following doesn't cause mechanical weathering?

a) Roots of plants.
b) Acid rains.
c) Wind movement.
d) Water movement.

(B) What happens when ...?

1. The kinetic energy that is applied to the wind turbines increases.

....

2. Sea waves pull sand away from beaches.

....

2 (A) Put (✓) or (×):

1. Radiant energy is produced from the Sun. ( )
2. After a rain storm, water in creeks or poured from gutters is muddy due to the deposition process. ( )

(B) Give a reason for:

1. Generators are important in the electric power stations.

....

2. Chemical weathering has a stronger effect than mechanical weathering.

....

3 Mention the role of:

1. Greenhouses: ....
2. Lichens in chemical weathering: ....

Model (2)



5 Marks

1 (A) Choose the correct answer:

1. Both modern wind turbines and old windmills are similar in ....
   a) their ability to generate electrical energy.
   b) using the kinetic energy of wind.
   c) having the same number of blades.
   d) their ability to store potential energy.

2. When the sea waves hit a sandcastle built on a beach, they take .... to disappear.
   a) few years. b) few minutes.
   c) few months. d) many years.

(B) Define:

1. Hydroelectric energy: ....
2. Delta: ....

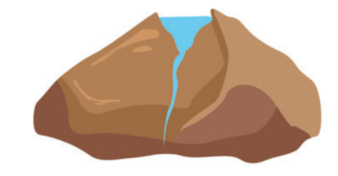
2 (A) Complete the following sentences using the words between brackets:

1. When the kinetic energy of wind increases, the speed of rotation of turbine blades the ....
   (decreases – increases)
2. Sand dunes in the Empty Quarter of the Arabian Peninsula are formed due to .... process. (weathering – deposition)

(B) What happens when ...?

1. Water is held behind dams.
   ....
2. Sunlight falls on solar cells of some streetlights.
   ....

3 Look at the opposite figure, then answer:



1. The opposite figure represents .... weathering.
2. How does this factor cause this type of weathering?
   ....

Model (3)

5 Marks

1 (A) Put (✓) or (×):

1. Watermills always do their job all the time, because the water source never dries up. ( )
2. Gentle winds move sand for long distances, while strong winds move sand for short distances.( )

(B) What happens when ...?

1. Increasing the potential energy of water stored behind a dam, (According to the kinetic and electrical energy)

   ....

2. Layers of sediment settle at the bottom of the rivers, oceans, or in desert over many years under pressure.

   ....

2 (A) Choose the correct answer:

1. The solar energy is converted into .... energy in a water solar heater.

   a) chemical　　b) electrical

   c) radiant　　d) thermal

2. The process by which water, wind, or gravity moves sediments and soil from one place to another is .... process.

   a) chemical weathering.　　b) erosion.

   c) deposition.　　d) mechanical weathering.

(B) Mention the action of ...:

1. Rain when it falls on the soil of farms located beside downhill: ....

   ....

2. Strong winds during deposition process: ....

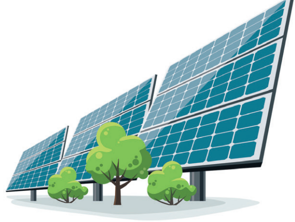
3 Look at the opposite figure, then answer:

1. The opposite figure represents ....

2. What is the energy conversion that occurs inside it?

   - ....

   ....



Model (4)

5 Marks

1 (A) Write the scientific term:

1. Machines that use water to grind grains. (..............................)
2. The process of laying down and settlement of sediments after their erosion. (..............................)

(B) Give a reason for:

1. Dams are built on rivers.

....

2. The Nile Delta is formed when the river meets the sea.

....

2 (A) Choose the correct answer:

1. All of the following are from the uses of solar energy, except ....

a) cooking food. b) generating electricity. c) crushing grains. d) heating water.

2. All of the following are from the factors that cause erosion, except ....

a) Earth's gravity. b) blowing wind.

c) water floods. d) change in temperature.

(B) What happens when ...?

1. A modern wind turbine operates.

....

2. Oxygen in the atmosphere reacts with iron in iron-rich rocks.

....

3 Mention the role of ....:

1. Convergent mirrors in cooking food: ....

2. Water in the formation of limestone caves: ....

Model (5)

5 Marks

1 (A) Complete the following sentences using the words between brackets:

1. Water is renewed on Earth through .... (dams – water cycle)
2. The .... pulls down the weathered rocks along the mountainsides. (Earth's gravity – wind)

(B) Look at the opposite figure, then answer:

1. The opposite figure represents a ....
2. Write the energy chain that represents the function of the opposite figure.

....

2 (A) Correct the underlined word:

1. The difference in air amounts causes air to move and wind to blow. (..)
2. Sediments are liquid materials resulted from weathering of rocks. (..)

(B) Give a reason for:

1. Electricity generated by windmills is considered a renewable energy source.

....

....

2. The growth of plant roots in rock cracks causes mechanical weathering.

....

3 (A) What are the disadvantages of using old windmills?

....

(B) What is the similarity between mechanical weathering and chemical weathering?

....

Model (1)



1 (A) Choose the correct answer:

1. From the disadvantages of using windmills: ....

a) they are expensive.
b) sometimes the wind doesn't blow.
c) they are always available.
d) they are cheap.

2. Which of the following doesn't cause mechanical weathering?

a) Roots of plants.
b) Acid rains.
c) Wind movement.
d) Water movement.

(B) What happens when ...?

1. The kinetic energy that is applied to the wind turbines increases.

- The electrical energy generated increases.

2. Sea waves pull sand away from beaches.

- Beaches erosion occurs.

2 (A) Put (✓) or (×):

1. Radiant energy is produced from the Sun. (✓)
2. After a rain storm, water in creeks or poured from gutters is muddy due to the deposition process. (×)

(B) Give a reason for:

1. Generators are important in the electric power stations.

- Because they change the kinetic energy into electrical energy.

2. Chemical weathering has a stronger effect than mechanical weathering.

- Because chemical weathering changes the structure of the rocks producing new materials.

3 Mention the role of:

1. Greenhouses: ....**They help farmers plant crops that only grow in warm climate** ....
2. Lichens in chemical weathering: .... **They produce acids on rocks that dissolve minerals found in these rocks and break them down** ....

Model (2)


5 Marks

1 (A) Choose the correct answer:

1. Both modern wind turbines and old windmills are similar in ....
   a) their ability to generate electrical energy.
   b) using the kinetic energy of wind.
   c) having the same number of blades.
   d) their ability to store potential energy.

2. When the sea waves hit a sandcastle built on a beach, they take .... to disappear.
   a) few years.
   b) few minutes.
   c) few months.
   d) many years.

(B) Define:

1. Hydroelectric energy: .... **It is a type of electricity generated by water turbines in dams** ....
2. Delta: .... **It is a triangular-shaped landform that is formed due to the deposition of sediments or mud where rivers meet seas or oceans** ....

2 (A) Complete the following sentences using the words between brackets:

1. When the kinetic energy of wind increases, the speed of rotation of turbine blades the ....
   (decreases – **increases**)
2. Sand dunes in the Empty Quarter of the Arabian Peninsula are formed due to .... process. (weathering – **deposition**)

(B) What happens when ...?

1. Water is held behind dams.
   - **Water stores potential energy.**
2. Sunlight falls on solar cells of some streetlights.
   - **The solar energy received by the solar cells is converted into electrical energy to operate the streetlights.**

3 Look at the opposite figure, then answer:



1. The opposite figure represents **mechanical** weathering.
2. How does this factor cause this type of weathering?
   - **Change in temperature causes the cycle of freezing and melting of water that widens the cracks and breaks the rocks apart.**

Model (3)



1 (A) Put (✓) or (×):

1. Watermills always do their job all the time, because the water source never dries up. (×)
2. Gentle winds move sand for long distances, while strong winds move sand for short distances. (×)

(B) What happens when ...?

1. Increasing the potential energy of water stored behind a dam, (According to the kinetic and electrical energy)

   - When the water flows, its kinetic energy increases, so more electrical energy is produced.

2. Layers of sediment settle at the bottom of the rivers, oceans, or in desert over many years under pressure.

   - Sedimentary rocks will be formed.

2 (A) Choose the correct answer:

1. The solar energy is converted into .... energy in a water solar heater.

   a) chemical b) electrical
   c) radiant **d) thermal**

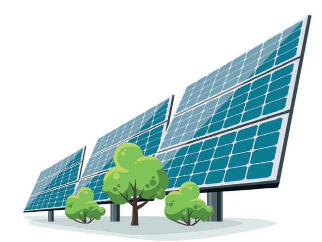
2. The process by which water, wind, or gravity moves sediments and soil from one place to another is .... process.

   a) chemical weathering. **b) erosion.**
   c) deposition. d) mechanical weathering.

(B) Mention the action of ...:

1. Rain when it falls on the soil of farms located beside downhill: .... **It washes away the soil of farms causing its erosion** ....
2. Strong winds during deposition process: ...**They can form large sand dunes.** ...

3 Look at the opposite figure, then answer:



1. The opposite figure represents **solar panels**.
2. What is the energy conversion that occurs inside it?

   - Solar energy (especially radiant energy) is converted into electrical energy.

Model (4)



5 Marks

1 (A) Write the scientific term:

1. Machines that use water to grind grains. (**Watermills**)
2. The process of laying down and settlement of sediments after their erosion. (**Deposition process**)

(B) Give a reason for:

1. Dams are built on rivers.
   - To control the water flow and increase the potential energy of water.
2. The Nile Delta is formed when the river meets the sea.
   - Because the sediments carried by the river are deposited there forming the delta.

2 (A) Choose the correct answer:

1. All of the following are from the uses of solar energy, except ....
   a) cooking food. b) generating electricity. **c) crushing grains.** d) heating water.
2. All of the following are from the factors that cause erosion, except ....
   a) Earth's gravity. b) blowing wind.
   c) water floods. **d) change in temperature.**

(B) What happens when ...?

1. A modern wind turbine operates.
   - It converts the kinetic energy of wind into electrical energy.
2. Oxygen in the atmosphere reacts with iron in iron-rich rocks.
   - A red rust (oxide) is formed that weakens the rocks and causes them to break easily.

3 Mention the role of ...:

1. Convergent mirrors in cooking food: .... **They convert the solar energy into thermal energy, as they collect and focus the sunlight to heat metal pots and cook food inside** ....
2. Water in the formation of limestone caves: .... **Water dissolves the minerals in the rocks, then the dissolved minerals recombine forming new shapes (such as drippings in the limestone caves)** ....

Model (5)



1 (A) Complete the following sentences using the words between brackets:

1. Water is renewed on Earth through .... (dams – **water cycle**)
2. The .... pulls down the weathered rocks along the mountainsides. (**Earth's gravity** – wind)

(B) Look at the opposite figure, then answer:

1. The opposite figure represents a **dam**.
2. Write the energy chain that represents the function of the opposite figure.

- **Potential energy → Kinetic energy → Hydroelectrical energy**



2 (A) Correct the underlined word:



1. The difference in air amounts causes air to move and wind to blow. (**temperature**)
2. Sediments are liquid materials resulted from weathering of rocks. (**solid**)

(B) Give a reason for:

1. Electricity generated by windmills is considered a renewable energy source.
   - **Because water is a renewable energy resource that can be replaced quickly after using it through water cycle.**
2. The growth of plant roots in rock cracks causes mechanical weathering.
   - **Because rocks are broken down without changing in their structure.**

3 (A) What are the disadvantages of using old windmills?

- **Sometimes the wind doesn't blow, so the mills don't move and can't grind (crush) the grains.**

(B) What is the similarity between mechanical weathering and chemical weathering?

- **Both of them cause breaking down of rocks into smaller parts.**




كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9

خطوة 1

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة دي – ثم نكتب 9

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6

حمل الآن

مجانا وحصريا

المراجعة رقم (2)

اختبار شهر مارس





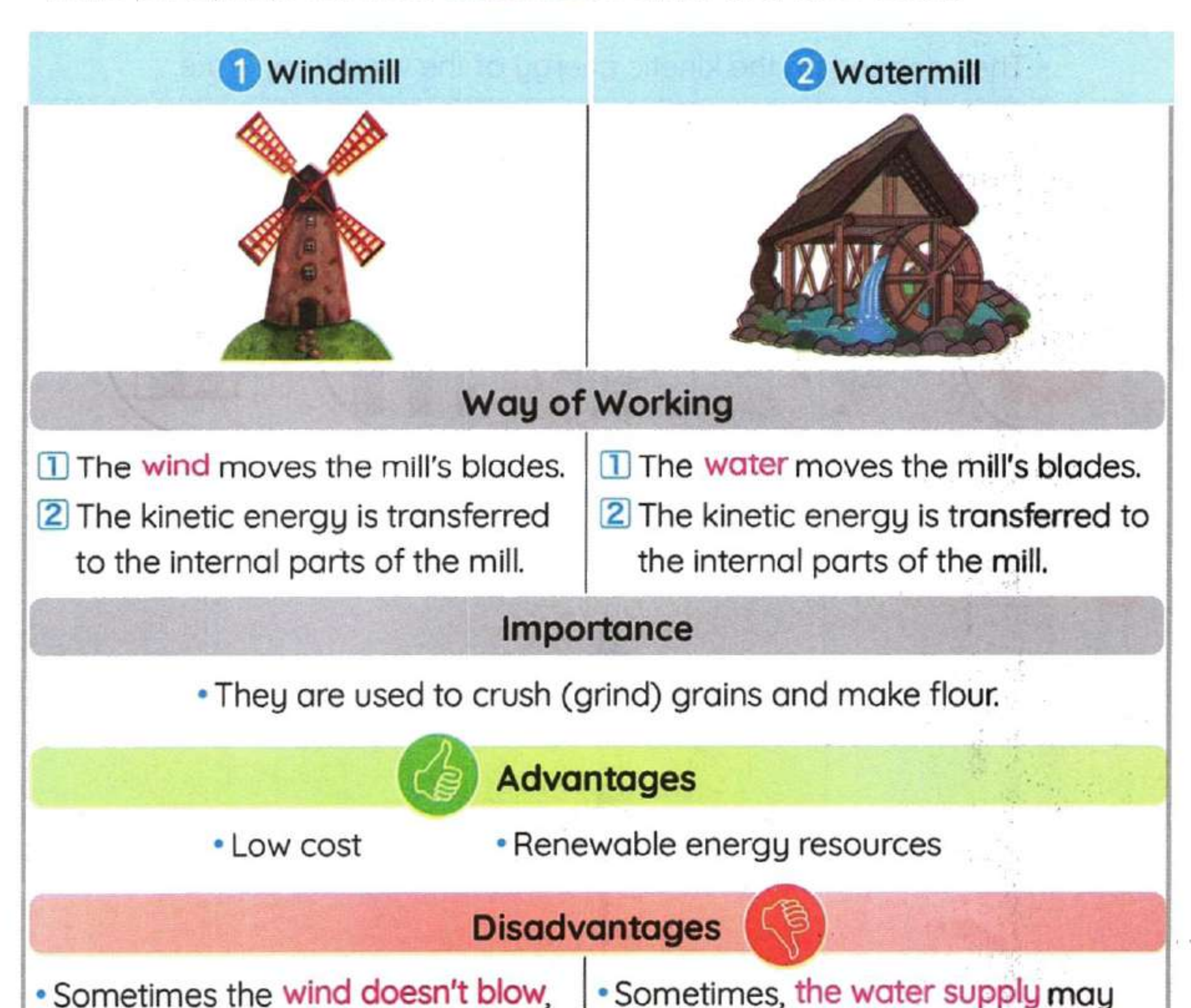
Concept 3 Renewable Energy Resources

1 Summary of Concept 3

Renewable resources of energy • They are natural resources that are replaced (renewed) at a faster rate than they are consumed.

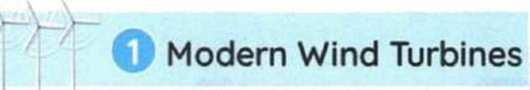
First: Wind Energy

• In the past, people needed machines to make their lives easier.



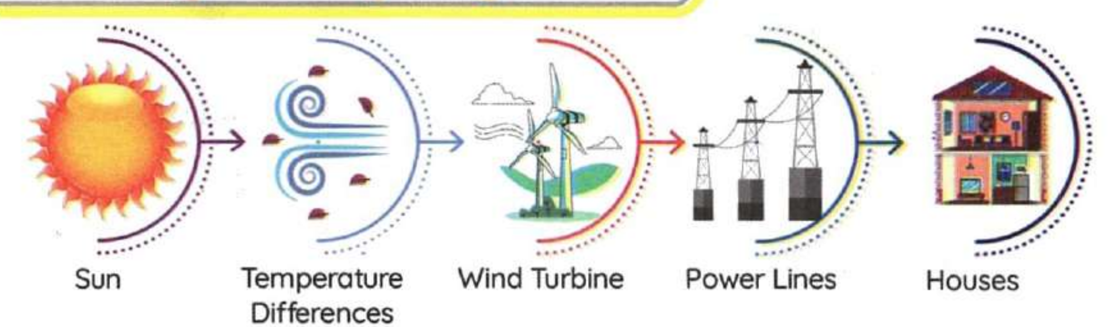
1 Windmill	2 Watermill
Way of Working	
1 The wind moves the mill's blades. 2 The kinetic energy is transferred to the internal parts of the mill.	1 The water moves the mill's blades. 2 The kinetic energy is transferred to the internal parts of the mill.
Importance	
• They are used to crush (grind) grains and make flour.	
Advantages	
• Low cost	• Renewable energy resources
Disadvantages	
• Sometimes the wind doesn't blow, so it can't do its main job.	• Sometimes, the water supply may dry up, so it can't do its main job.

Modern turbines are used now instead of old windmills.



① Modern Wind Turbines	② Old Windmill
Function	
• Generating electricity	• Grinding the grains to make flour
Differences	
• They are taller than windmills. • They have fewer blades than windmills. • The blades have no openings.	• They are shorter than wind turbines. • They have more blades than wind turbines. • The blades have openings.
Similarity	
• They depend on the kinetic energy of the wind to operate.	

Generating Electricity Using the Wind



1. **Solar energy** causes the air to move and the wind to blow.

↓

2. The kinetic energy of the **wind** rotates the blades of the **wind turbines** that are used to spin the generators.

↓

3. The **generators** change kinetic energy into electrical energy.

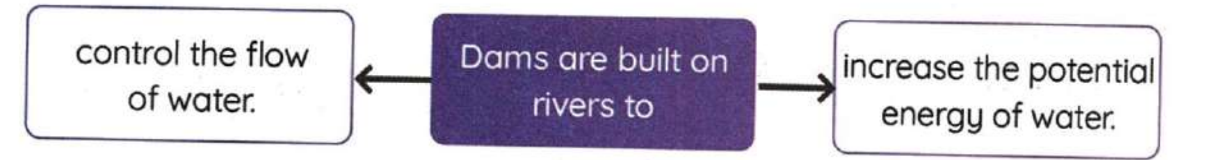
↓

4. **Electricity** is transferred through big wires towards cities to light houses and streets.

Second: Water Energy

Hydroelectricity: (Hydroelectric energy)

- It is a type of electrical energy generated by water turbines in dams.



How can water be used to generate electricity 

1. A hydroelectric dam holds back the flow of water to increase its potential energy.

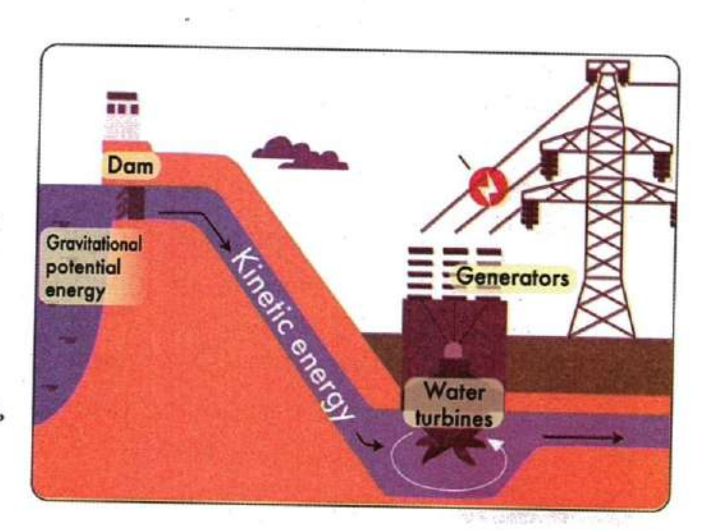


2. When the water is released, it passes through the blades of turbines, so they rotate.



3. Turbines operate the generators, so kinetic energy is converted into electrical energy.

4. Electricity is transferred to cities through long electric wires.



P.O.C	1 Wind Turbines	2 Water Turbines
Differences	• They are placed in windy places.	• They are placed in places where dams are built on rivers.
Similarities	1 Both of them are **renewable resources**. 2 Both of them use **kinetic energy** to turn turbines. 3 Both of them are used to **generate electricity**.	

Third: Solar Energy

Sun

1. It is the main source of all kinds of energy on Earth.
2. The sunrays are called radiant energy (radiation).
3. The Sun provides us with light and heat.
4. The energy received from the Sun is called solar energy.

Uses of Solar Energy

- We can use solar energy as a source of thermal energy

1 Greenhouses



Importance:

- They help farmers plant the crops that need warm climates.

How does it work?

1. A greenhouse allows the entry of light and radiant energy from the Sun.
2. Radiant energy changes to thermal energy inside it.
3. Thermal energy warms the greenhouse from inside.

2 Warming

a. Warming Ourselves
   - When exposing yourself to the Sun, you feel warm.

b. Warming Houses
   - By placing large windows on the wall that faces the sun.

3 Concave mirrors



- They collect and focus the sunlight to heat a metal pot and cook the food inside.

4 Solar water heater



Structure: It contains panels made of black pipes.

Location: It can be placed on the roof of a house.

How does it work?

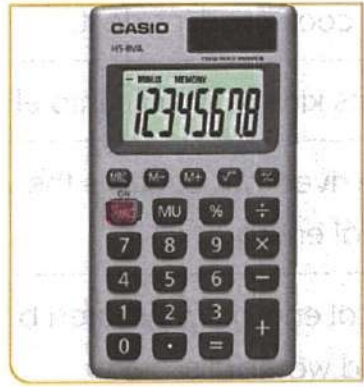
1. As water passes through the pipes, it heats up.
2. Water can then be stored in a hot water tank to be used later.

Solar Panels

Structure	• They consist of a large number of small solar cells.
Idea	• Solar cells capture the radiant energy coming from the Sun and turn it directly into electricity.
Size	• Very small to supply only one light bulb with energy • Very large to supply buildings or cities with energy
Uses	Most solar panels are used to generate electricity to: 1 Light houses and streets. 2 Operate electric devices. 3 Recharge batteries of solar-cell calculators. 4 Power irrigation equipment in some villages.









2 Definitions of Concept 3

Renewable energy resources	They are energy resources that include wind energy and water energy.
Old windmill	It's a machine that used the kinetic energy of the wind to grind grains to make flour.
Watermill	It's a machine that used the kinetic energy of the water to grind grains to make flour.
Modern wind turbines	They use the kinetic energy of the wind to generate electricity.
Solar panels	They are composed of many solar cells. They absorb solar energy (sunlight) and convert it into electrical energy.
Greenhouse	It's a structure that helps farmers to plant crops that need warm climate.
Concave mirror	It's a mirror used to direct and focus sunrays toward the metallic pot used to cook food inside it.
Generator	It's a device that turns kinetic energy into electrical energy.
Dam	It's a building on the river that controls the water flow and increases its potential energy.
Hydroelectricity	It's a type of electrical energy generated by water turbines in dams and waterfalls.
Evaporation	It's a process in which water changes into water vapor.
Condensation	It's a process in which water vapor changes into water.

3 Give Reasons for... Concept 3

1. People use machines.
   - To make their life easier and do tasks faster.
2. Solar energy is a renewable resource of energy.
   - Because solar energy is the energy that will not run out as we use it.
3. People used windmills and watermills 400 years ago.
   - To grind grains to make flour.
4. People now use modern wind turbines.
   - To generate the electricity needed to light houses and operate different devices.
5. Using windmills and watermills has a lot of advantages.
   - Due to their low cost and because they depend on renewable resources.
6. Using windmills and watermills has great disadvantages.
   - Sometimes the wind does not blow or the water supply may dry up.
7. We feel the warmth of the Sun at night.
   - Because the atmosphere, water and soil absorb heat energy from the Sun.
8. Greenhouses help farmers in the agricultural field.
   - Because they help farmers in planting crops that need warm weather.
9. We place large windows on the wall that faces the Sun.
   - To enable the energy of the Sun to warm the house.
10. Concave mirrors are used in cooking.
    - To direct the sunrays towards the cooking pans to cook food inside them.
11. The panels made of black pipes can be placed on the houses' roofs.
    - To heat water, then store it in a hot water tank.
12. Solar panels are used in generating electricity for lighting houses and streets.
    - Because they convert solar energy into electrical energy.
13. The Sun is the main source in generating electricity from windmills.
    - Because the Sun warms the Earth and the wind. Different parts of the world get different amounts of solar energy. This causes the blowing wind to rotate the blades of the windmills.

14. Dams are built on rivers.
    - To control the flow of water and increase the gravitational potential energy of water to generate electricity.

15. Water returns to rivers after flowing.
    - Because water evaporates, then it condensates in the form of clouds and returns to the rivers in the form of rain.

16. Renewable resources of energy are considered clean resources of energy.
    - Because they don't need burning fossil fuel to generate electricity, so they don't pollute the environment.

17. There are conditions required for wind turbines to work with high efficiency.
    - Because they should exist in windy regions.

4 What Happens if...? Concept 3

1. Wind doesn't blow in an area that contains many wind turbines.
    - The wind turbines will not move, so they can't generate electricity.

2. Water falls on the blades of water turbines.
    - The blades will rotate, so they can generate electricity.

3. The force of wind increases in an area that contains many wind turbines.
    - The blades rotate faster, and the efficiency of the wind turbines increases.

4. Sunlight falls on a greenhouse.
    - Radiant energy changes to thermal energy inside the greenhouse which warms the greenhouse from inside.

5. Sunlight falls on a concave mirror.
    - The concave mirror focuses the sunlight on the cooking pot to cook food inside it.

6. Sunlight falls on a solar-cell calculator.
    - It changes solar energy to electrical energy to charge its batteries.

7. Water is released from a dam.
    - The gravitational energy of water changes into kinetic energy to rotate the water turbines and generate electricity.

5 Revision on Concept 3

1 Choose the correct answer:

1. All the following are considered renewable resources of energy, except ....
   a. wind b. coal c. the Sun d. water
2. The main function of .... is grinding the grains and making flour.
   a. modern turbines b. solar panels
   c. dams d. watermills
3. Both modern wind turbines and old windmills are similar in their........ .
   a. blades number b. ways of working
   c. heights d. blades shape
4. Modern turbines are .... than old windmills.
   a. longer b. shorter c. heavier d. slower
5. The source of all energies on Earth is ....
   a. wind b. the moon c. the Sun d. water
6. In winter, greenhouses help farmers grow plants that need ....
   a. warm weather b. cold weather
   c. less water d. less sunlight
7. Solar panels can be used operate all the following, except ....
   a. a calculator b. a gas oven
   c. irrigation equipments d. street lights
8. The .... energy of the Sun causes air movements and wind blowing.
   a. chemical b. radiant c. electrical d. sound
9. The electricity from wind turbines is transmitted into houses and factories through ....
   a. the wind b. devices c. generators d. wires
10. Hydroelectric power is produced using ....
    a. air b. water c. soil d. plants
11. Water of rivers stores great .... energy at the top of the waterfalls.
    a. kinetic b. potential c. electrical d. light
12. The power source for the electric fan is ....
    a. wind b. water c. heat d. electricity

2 Put (✓) or (✗):

1. Windmills can do their job all the time, as the wind never stops blowing. ( )
2. When the kinetic energy of the wind increases, the windmill blades spin faster. ( )
3. Both modern wind turbines and old windmills are used to generate electricity. ( )
4. Electricity generated by wind turbines is transmitted through the wind. ( )
5. The power source for the electric fan is wind. ( )
6. Wind turbines convert kinetic energy into electrical energy. ( )
7. We use solar energy to preserve food. ( )
8. We feel the warmth of the Sun during the day only. ( )
9. A solar cell consists of a large number of small solar panels. ( )
10. A calculator's output energy is solar energy. ( )
11. Small solar panels may be able to light buildings. ( )
12. The flow of water in dams can be controlled to generate electricity. ( )
13. Electricity generated from water is called hydroelectricity. ( )
14. Rivers store kinetic energy. ( )
15. The electricity produced by water is known as electromagnetic energy. ( )

3 Write the scientific term:

1. They are energy resources that include wind energy and water energy. (..................)
2. They are used to collect and focus sunrays towards the cooking pots. (..................)
3. It's a device that the wind rotates its blades to generate electricity. (..................)
4. It's a device that consists of black pipes used to heat water. (..................)
5. It's the device in an electric power station that turns kinetic energy into electrical energy. (..................)

6. It's a structure on the river that controls the flow of water and increases the potential energy of water. (..........)
7. It's a type of electrical energy generated by water turbines in dams. (..........)

4 Complete the following sentences:

1. When the wind turbines rotate, ... energy is converted into .... energy.
2. Both wind and water movements produce .... energy, which is used to rotate turbines to generate .... energy.
3. The number of blades in modern wind turbines is .... than in old windmills.
4. We can use solar energy in cooking using concave ...., which collect and focus the .... onto the metal pots to heat them.
5. .... help farmers grow crops that need warm weather.
6. Solar energy causes the air to .... and the wind to ....
7. Electricity is transferred to cities through ....

5 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Greenhouses	a. are used in heating water.
2 Concave mirrors	b. are used in planting some kinds of crops.
3 Panels of black pipes	c. are used in cooking food.

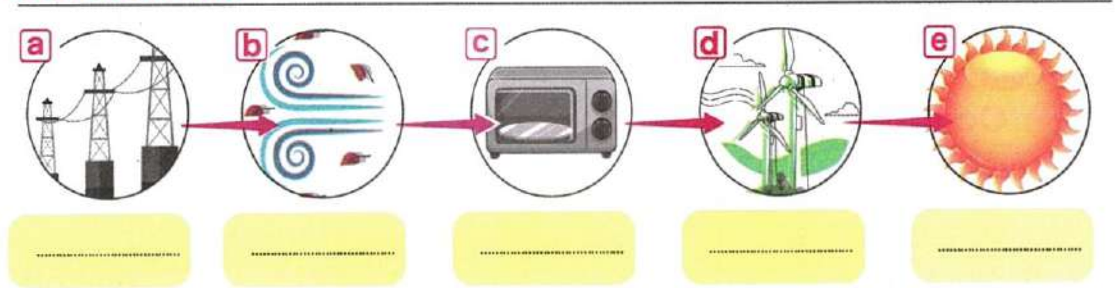
1 .... 2 .... 3 ....

6 Study the following figures, then complete the sentences below:

Figure (1)	Figure (2)

1. Figure (......) is used to grind grains.
2. The machine in figure (......) is shorter than the machine in figure (......).
3. Both of them are similar in ....
4. Both of them depend on ....

7 To generate electricity, arrange the following figures from start to end:



....

8 Give reasons for:

1. People used windmills and watermills 400 years ago.
....
2. People now use modern wind turbines.
....
3. You feel the warmth of the Sun at night.
....
4. Greenhouses are very important to farmers.
....
5. Generators have an important role in electric power stations.
....
6. Dams are built on rivers.
....

9 What happens if?

1. Wind doesn't blow in an area that has wind turbines?
....
2. The kinetic energy that is applied on the wind turbines increases?
....
3. The water of dams becomes free?
....

Concept 1 Breaking Down and Moving Rocks

1 Summary of Concept 1

- The Earth's surface always changes.

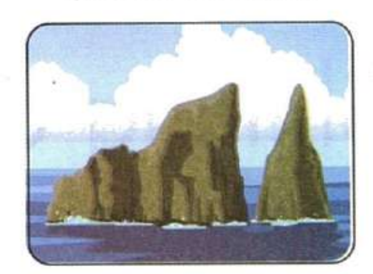
Sandcastles
- They have steep parts and sloping sides at the bottoms.
- They disappear after a short time due to the erosion of the sea waves.

(A rapid change)



Coastal rocks
- They have steep parts and sloping sides at the bottoms.
- There may be a little difference as breaking off some parts by wind or water after many years.

(A slow change)



Canyons
- They have steep needle-like parts with slopes at the sides.
- They take millions of years to be formed.

(A slow change)

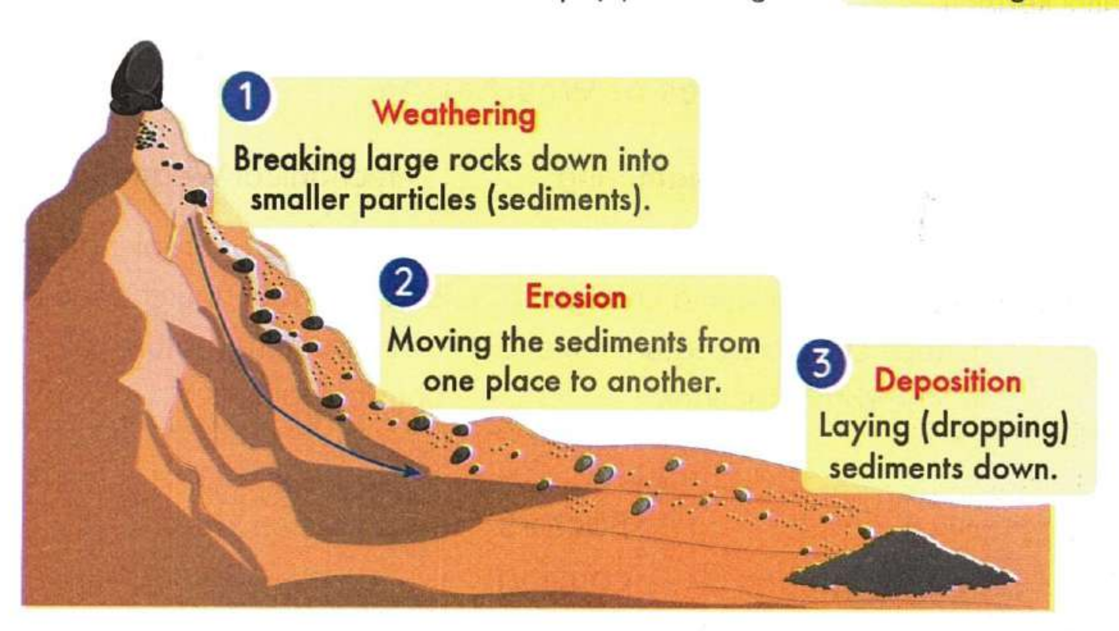


Canyon:
- has steep needle-like parts
- is formed due to slow changes
- is created by water
- has inclined sides at bottom

Shaping the Earth's surface

- Wind, water, and weather conditions are the factors that cause changes of the Earth's surface.
- Earth's surface changes through three processes which are weathering, erosion, and deposition.

1 Weathering → 2 Erosion → 3 Deposition





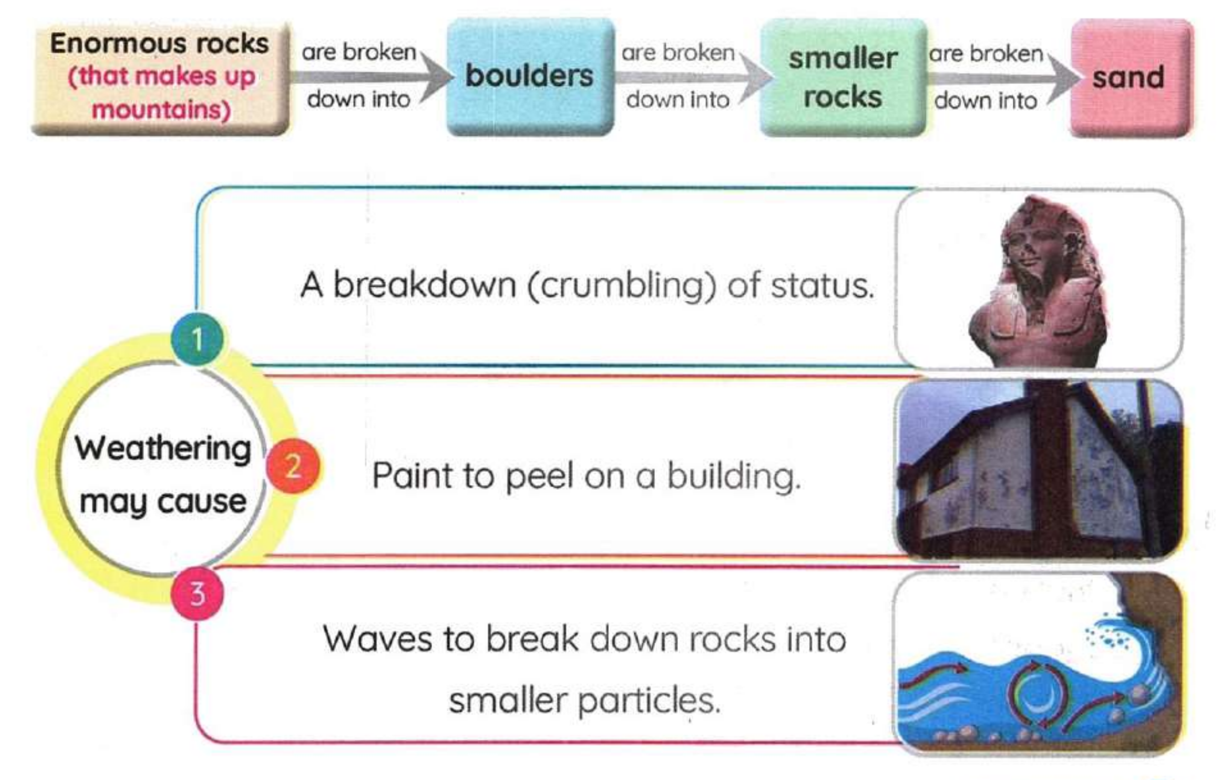
1 Weathering:



- The changing of the Earth's surface begins with the **weathering process**.

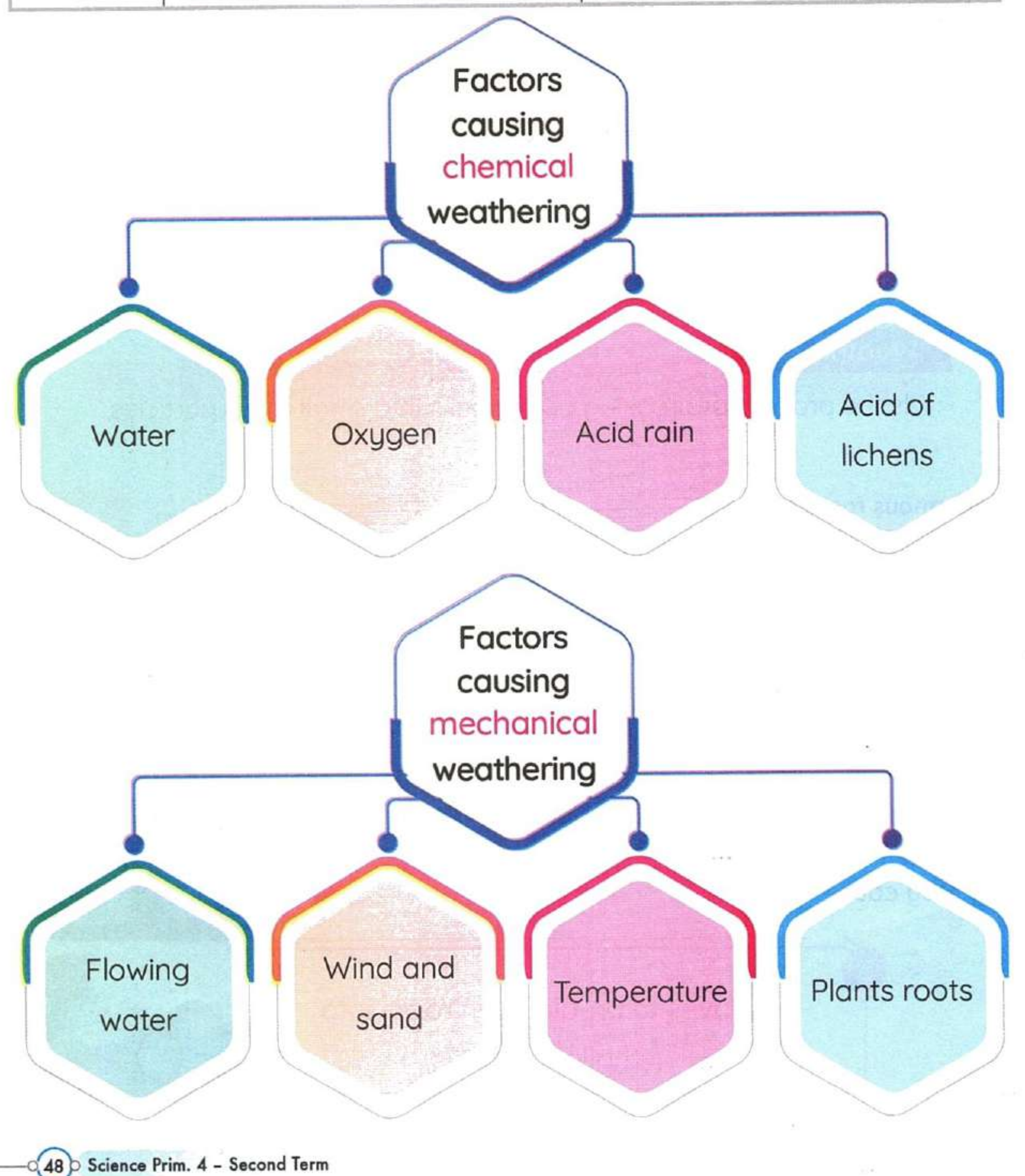
Weathering

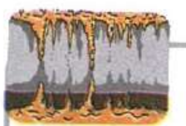
Is the process of breaking down rocks into small (tiny) particles.



Types of Weathering

P.O.C	Chemical Weathering	Mechanical Weathering
Definition	• The process of breaking rocks down with a change in their structure (nature) due to chemical reactions.	• The process of breaking rocks down without any change in their structure (nature) due to physical factors.





Water

- Water dissolves minerals in the rocks, and then those **dissolved minerals** recombine again, forming new shapes, as in **limestone caves**.

Oxygen

- **Oxygen** in the air reacts with the **iron** in some rocks, forming **red-colored rust** that causes rocks to be weak and easily broken.

Factors causing chemical weathering

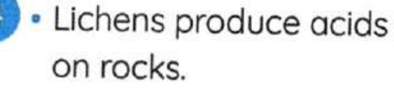
1. Water
2. Oxygen
3. Acid rain
4. Acid of lichens

Acid rain

- Acid rain falls on rocks.
- These acids dissolve minerals in the rocks, so they become weaker and break down easily.



Acid of lichens



- Lichens produce acids on rocks.
- These acids dissolve minerals in the rocks, so they become weaker and break down easily.



Flowing water

- Flowing water carrying some sand and gravel causes:

a. Scouring edges off boulders.
b. Breaking off large pieces of tumbled rocks due to collision with each other.



Plants roots

a. Plant roots grow inside the cracks of rocks.
b. Cracks become wider.
c. Rocks are broken down.

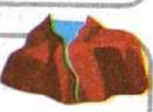
Factors causing mechanical weathering

1. Flowing water
2. Plants roots
3. Wind and sand
4. Temperature



Wind and sand

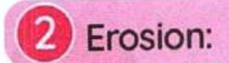
a. Wind rushes sand on the rock surface.
b. Friction occurs between sand and rocks.
c. This causes the smoothing of rocks and the breaking down of them.



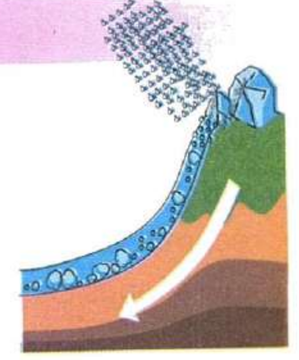
Temperature

a. Water flows in the tiny cracks in the rocks.
b. Water expands when it turns into ice, then melts.
c. By repeated melting and freezing of water, cracks in rocks become wider, causing the rocks to be broken down.





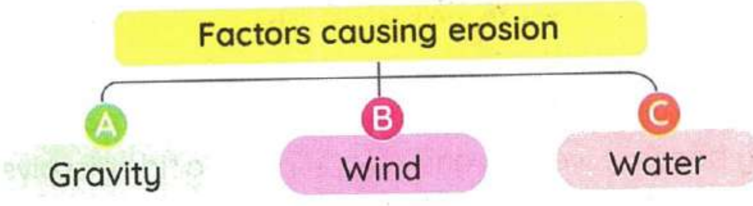
2 Erosion:



Erosion

It is the process of moving sediments from one place to another.

- **Note:** Sediments are weathered sand, soil, and small rocks.



Factors causing erosion

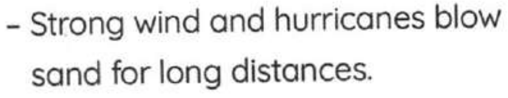
A Gravity

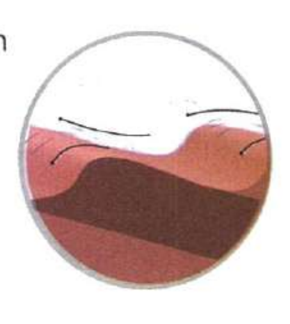
- Gravity pulls rocks down mountainsides.



B Wind

- The wind carries grains of sand from one place to another, where:
  - Strong wind and hurricanes blow sand for long distances.
  - Gentle wind blows sand grains for short distances.





C Water

- **Rivers** and **floods** erode rocks and soil from their banks.
- **Waves** pull sand away from beaches.
- **Rain** washes the soil on hilly farmland downhills.



3 Deposition:

Deposition

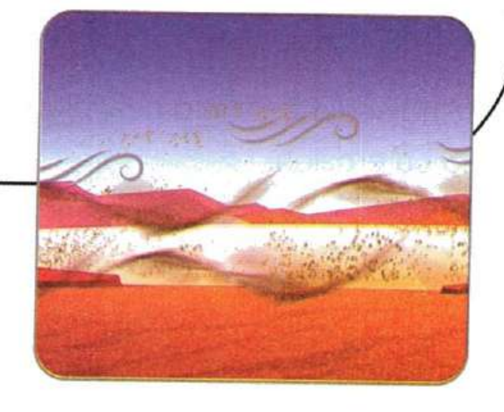
It is the process of laying down eroded sediments in a new place.

1 Deposition by wind:

- As the wind blows, it picks up sand.
- Wind carries sand to another place.
- When the wind stops blowing, sand is deposited.

This forms:

a. Small sand dunes on beaches.
b. Large sand dunes in desert.



2 Deposition by water:

- A river carries sediment eroded from its banks.
- When the river carrying sediments meets a sea, it deposits them.

This forms:

- A delta, such as Nile Delta



2 Definitions of Concept 1

Weathering	It is the process of breaking down rocks into smaller pieces.
Mechanical weathering	It is a type of weathering that breaks off rocks without changing its matter(structure).
Chemical weathering	It is a type of weathering that leads to the formation of a different material.
Lichens	They are tiny-like plants that live on rocks and produce acid on them, causing them to break down.
Oxygen gas	It is the gas that reacts with iron in rocks, forming a red-colored rust on some rocks.
Plant's roots	They are a part of the plant that grows in rocks' cracks, causing them to be broken.
Acid rain	It is a natural phenomenon that has the same effect as lichens on rocks.
Erosion	It is the process of moving sediment from one place to another.
Deposition	It is the process of settling sediments in a new place after they have been moved by erosion.
Gravity	It is an eroding factor that pulls the rocks down mountainsides.
River	It is an eroding factor that moves rocks from their banks downstream.
Sediments	They are pieces of weathered rocks that are moved by gravity, wind, water, or other factors.

3 Give Reasons for... Concept 1

1 The Earth's surface is always changing.
- Because of many factors, such as wind, water, and weather.

2 Wind is the main factor changing the Earth's surface.
- Because it can break down rocks and move small rocks to another place.

3 Waves are from factors which can change landforms.
- Because waves can move small parts of sand from one place to another.

4 Changes to the Earth's surface are different in the time of happening.
- Because some changes of the Earth surface happen quickly, such as the disappearance of sandcastles, while others take a very long time, such as formation of canyons.

5 The shape of coastal rocks changes after many years.
- Because some parts of them may be broken off by water or wind.

6 The main source of soil is big rocks.
- Because when the weathering process occurs, the big rocks break down into tiny rocks, then into pebbles or grains of sand.

7 Oxygen gas has a bad effect on rocks.
- Because oxygen gas can react with iron in rocks forming red-colored rust which makes the rock weaker and breaks down easily.

8 Plant roots may have a bad impact on rocks.
- Because as plant roots grow inside rocks, the cracks in the rocks become wider, so the rocks break down.

9 Lichens have a bad impact on rocks.
- Because they produce acids as they grow on rocks that make the rock weaker and break off easily.

10 There are some similarities between the effects of lichens and acid rain on rocks.
- Both of them can dissolve the rocks or changing their nature.

11 Sand and wind team up to wear down large rocks.
- Because wind rushes sand on the surface of the rocks, it smoothes and breaks them down.

12 It is hard to see weathering in action (in most cases).
- Because it takes a long period of time to happen.

13 Chemical weathering causes a greater change to rocks than mechanical weathering.

- Because chemical weathering forms completely new, different matter, while mechanical weathering breaks down rocks only.

14 Sometimes you can see erosion happening.

- Because sometimes we can see flash floods, hurricanes, or landslides.

15 Gravity is one of the eroding factors.

- Because gravity pulls rocks down mountainsides.

16 Erosion and deposition are linked processes.

- Because eroded rocks must be deposited over time.

17 The formation of a delta.

- As a result of the deposition process when a river meets a sea.

4 What Happens if...? Concept 1

1 The waves hit a sandcastle?

- The sandcastle will be gone (disappeared).

2 Water runs over rocks?

- Water will dissolve some minerals in rocks.

3 Oxygen in our atmosphere reacts with iron in the rock?

- A red-colored rust will be formed, so rocks are broken down more easily.

4 The continuous melting and freezing cycle of water inside rocks cracks?

- Water expands, causing the cracks in the rocks to become wider, so the rocks break off.

5 Acid rain falls on rocks?

- Acid rain will dissolve the minerals in rocks, so they become weaker and break down easily.

6 Lichens grow on the rocks?

- They produce acids that can break off rocks.

7 A plant's root grows inside rocks?

- The cracks become wider so rocks break down easily.

8 Rain falls on a hilly farmland?

- Rain will carry the weathered rocks and soil on farmlands.

9 Wind stops blowing (concerning the process happening to sand)?

- The deposition process will happen.

10 A river carrying sediments meets a sea?

- The deposition process happens and a delta may be formed.

5 Revision on Concept 1

1 Choose the correct answer:

1. Steep valleys formed due to flowing water erosion are called ....
   a. hills b. sand dunes c. canyons d. deltas
2. A canyon may take .... to be formed.
   a. minutes b. hours c. days d. years
3. All the following are reasons for chemical weathering, except ....
   a. water b. plant roots c. acid rain d. oxygen gas
4. .... may cause chemical or mechanical weathering.
   a. Lichens b. Oxygen c. Water d. Rocks
5. Which of the following examples represents mechanical weathering?
   a. Red-colored rust on rocks b. Acid rain falls on rocks.
   c. Roots grow inside rocks. d. Water dissolves minerals.
6. Sand is formed due to the breaking down of ....
   a. wood b. plastic c. glass d. rocks
7. Limestone caves are formed due to the combination of ....
   a. dissolved minerals b. insoluble minerals
   c. red-colored rust d. acid rain
8. .... is the process by which sediments are carried to another place.
   a. Deposition b. Erosion c. Weathering d. Melting
9. Dissolving minerals from rocks to recombine with new substances is an example of ....
   a. mechanical weathering b. weathering by wind
   c. chemical weathering c. erosion
10. All the following are processes that change the Earth's surface, except ....
    a. erosion b. digestion c. weathering d. deposition
11. Lichens produce .... that dissolve(s) minerals found in rocks.
    a. oxygen b. rain c. water d. acids

12 The process of breaking down rocks on the Earth's surface is called ....

a. erosion b. weathering c. decomposition d. deposition

13 The force of .... pulls rocks from the top of the mountain to its bottom.

a. river water b. seawater c. rainwater d. gravity

14 .... erode(s) rocks and soil from their banks.

a. Rivers b. Mountains c. Rainwater d. Gravity

15 When a river carrying sediments meets a sea, a .... is formed.

a. sand bar b. sand dune c. delta d. sand pile

16 Gentle wind can carry sand grains for .... distances.

a. short b. long c. huge d. very long

2 Put (✓) or (✗):

1 The Earth's surface changes from time to time. ( )

2 All changes to the Earth's surface take hundreds of years. ( )

3 Canyons take millions of years to be formed. ( )

4 The Earth's surface never changes. ( )

5 The deposition process takes place before the erosion process. ( )

6 We can see weathering in action everywhere around us. ( )

7 Plant roots help in the formation of rocks. ( )

8 Rocks become stronger when iron found in them rusts. ( )

9 Wind is one of the agents that cause weathering. ( )

10 Chemical weathering causes greater changes to rocks than mechanical weathering. ( )

11 Sometimes you can see erosion happening. ( )

12 The deposition process never changes the shape of the Earth's surface. ( )

13 The formation of sand dunes in the Eastern Desert in Egypt is due to the movement of the wind. ( )

14 Floods are one of the factors that cause water erosion. ( )

15 The erosion process is usually followed by the weathering process. ( )

3 Write the scientific term:

1. They are deep valleys carved by the flowing water. (..................)
2. It's the process of moving rocks from one place to another. (..................)
3. It's the process of laying sediments down. (..................)
4. It's the kind of weathering that changes the structure and color of rocks. (..................)
5. They are tiny, like plants, that live on rocks and produce acids on them. (..................)
6. It is the gas that causes the red-colored rust on some rocks. (..................)
7. It is a type of weathering that occurs in rocks and leads to the formation of a completely different material. (..................)
8. It is a type of weathering that breaks rocks down without changing their matter. (..................)
9. It is an eroding factor that pulls rocks down mountainsides. (..................)
10. It is an eroding factor that moves rocks from their banks downstream. (..................)
11. It is the process that lays sand down when the wind stops blowing. (..................)
12. It is a landform of deposited sediments formed when a river meets a sea. (..................)

4 Complete the following using the words between the brackets:

A (Mechanical - Acid rain - chemical - oxygen - Acids - iron - plant roots)

1. The melting and freezing cycles of water have the same effect as ...., as they make the cracks in the rocks wider.
2. .... produced by lichens may dissolve rocks.
3. .... has the same effect of lichens on rocks.
4. .... weathering and .... weathering are types of weathering.
5. When the .... in air reacts with .... in rocks, a red-colored rust is formed.

B (water - Nile Delta - hurricane - deposition - gentle wind - Egyptian Western Desert)

1. A .... forms a small sand dune, while a .... forms large sand dunes like that in the ....
2. .... is a fan-shaped mass of mud and sediments.
3. Wind, ..., and gravity are natural factors that control erosion process.
4. The process of laying down sediment after its erosion is called ....

5 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Lichens	a. causes mechanical weathering of rocks.
2 Water	b. causes the red-colored rust on a toy car.
3 Oxygen	c. produce acids as they grow on rocks.
4 Melting and freezing	d. may cause both types of weathering.

1 .... 2 .... 3 .... 4 ....

6 Study the following figures, then complete the following sentences:

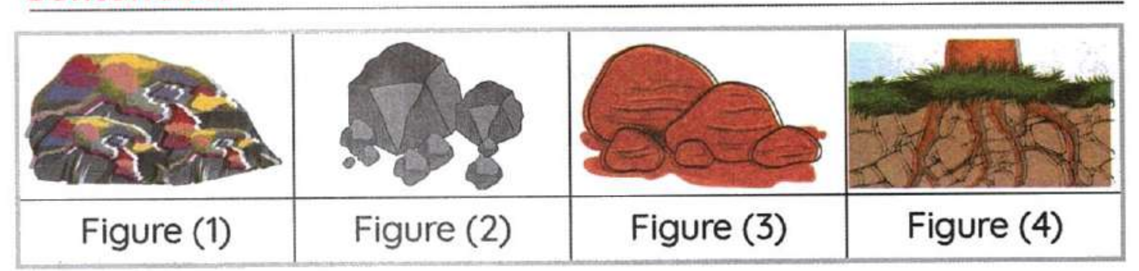


Figure (1) Figure (2) Figure (3) Figure (4)

1. Figure (..........) represents a living organism that causes mechanical weathering.
2. Figure (..........) represents a living organism that causes chemical weathering.
3. Oxygen gas has a bad effect on rocks in figure (..........).

7 Give reasons for:

1. The Earth's surface is always changing.

....

2. Oxygen in the atmosphere has a bad effect on some rocks.

....

3. Lichens dissolve rocks as they grow.

....

4. Chemical weathering causes greater changes to the rocks.

....

5. Erosion and deposition are linked processes.

....

8 What happens if?

1. Oxygen gas reacts with iron rocks, forming a red-colored rust?

....

2. Acid rain falls on rocks?

....

3. The lichens that grow on rocks produce acids?

....

4. Plant roots grow inside rocks' cracks?

....

المراجعة رقم (3)

اختبار شهر مارس





Model Exam 1

On Concept [3.3]

Total mark
___
15

1 **(A) Write the scientific term of each of the following :** *(5 marks)*

1. The main energy which is produced from generators that are connected to both water turbines and wind turbines. (.........................)
2. The main source of energy on Earth. (.........................)
3. A turbine that uses the power of blowing air to generate electricity. (.........................)
4. An equipment consists of panels made of black pipes that is used to heat water at houses. (.........................)

(B) Give a reason for the following :

Hydroelectric dams are built on rivers.

....

2 **(A) Correct the underlined words :** *(5 marks)*

1. Thermal energy and sound energy are produced from the Sun and reach the Earth. (.........................)
2. When air blows into the wind turbine strongly, the blades spin slower. (.........................)
3. Solar panels use sound energy to generate electricity. (.........................)
4. During the flowing of river's water downhill, the chemical potential energy of water is converted into kinetic energy. (.........................)

(B) What happens if ...?

The presence of solar panels in some electrical devices.

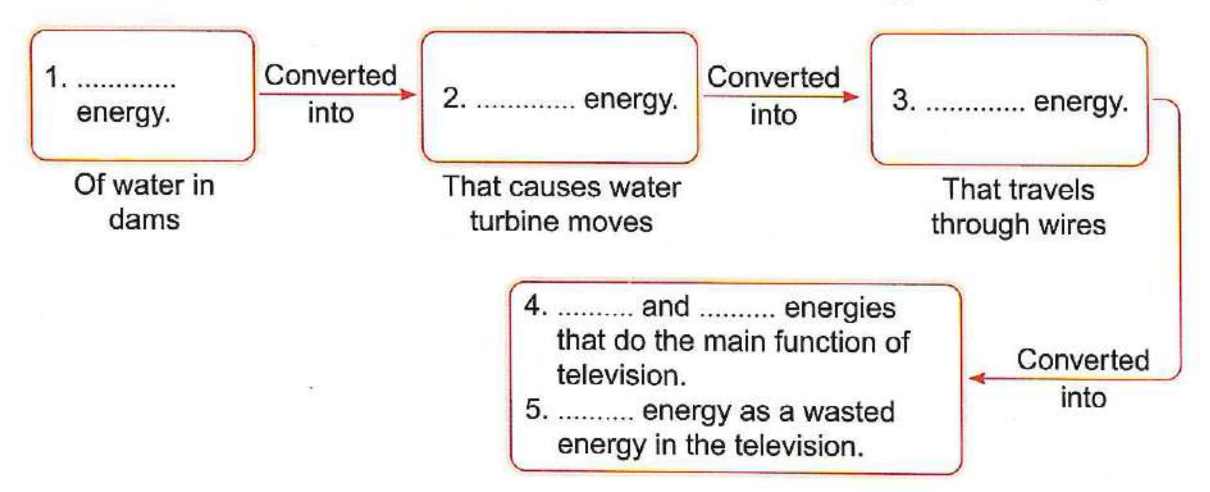
....

3 **(A) Put (✓) or (✗) :** *(5 marks)*

1. Both wind movement and water flow have kinetic energy. ( )
2. The hydroelectric energy is produced by using wind turbines. ( )
3. Wind is a renewable energy resource. ( )
4. The flow of water can't be controlled to generate electricity in dams. ( )

(B) Complete the following energy chain of a television by using the words between brackets :

(Electrical – Sound – Thermal – Potential – Light – Kinetic)



Model Exam 2

On Concept [3.3]

Total mark
——
15

1 (A) Choose the correct answer : *(5 marks)*

1. In the water cycle, water ...., then it .... before falling in the form of rains.
   a. freezes – evaporates
   b. evaporates – condenses
   c. evaporates – freezes
   d. condenses – evaporates

2. The solar energy is converted into .... energy in greenhouses.
   a. electrical
   b. sound
   c. thermal
   d. potential

3. The reason of flowing of river water downhill is the .... force.
   a. pushing
   b. friction
   c. gravitational
   d. electrical

4. Some types of lamps in streets depend directly on .... as a renewable energy resource in order to do its function.
   a. sunlight
   b. petrol
   c. coal
   d. natural gas

(B) Complete the following table :

Device	Used energy	Produced energy
Solar panels	.... (1) .... energy	.... (2) .... energy

2 (A) Write the scientific term of each of the following : *(5 marks)*

1. A turbine in which the kinetic energy of moving water is used to generate electricity. (........................)
2. A process by which water changes into water vapor. (........................)
3. A natural movement of air that is resulted from the difference in temperatures between cold air and hot air. (........................)
4. A glass building that is used in cold areas to plant crops which grow in warm climate. (........................)

(B) Mention one use for the following :

Windmills : ....

....

3 (A) Put (✓) or (✗) : *(5 marks)*

1. Wind turbines must be used in windy places. (   )
2. Solar panels can be used to operate irrigation equipment in some villages. (   )
3. Water condenses forming fuel, then return back to its source during rainfall. (   )
4. Dams are built on rivers to increase thermal energy of rivers' water. (   )

(B) Give a reason for the following :

You can feel warm at night although the Sun is not visible in the sky.

....

....

Model Exam 1

On Concept [4.1]

Total mark
___
15

1 (A) Choose the correct answer : *(5 marks)*

1. The formation of canyons takes ....
   a. few minutes. b. few hours. c. few days. d. many years.
2. Which of the following does not cause mechanical weathering ? ....
   a. Roots of plants. b. Acid rains.
   c. Wind movement. d. Water movement.
3. Moving of sediments from a place to another represents .... process.
   a. weathering b. photosynthesis c. erosion d. deposition
4. When a river meets a sea or an ocean, a .... is formed.
   a. canyon b. volcano c. mountain d. delta

(B) Give a reason for the following :

Iron in rocks may rust.

....

....

2 (A) Put (✓) or (✗) : *(5 marks)*

1. Sea waves may cause erosion of beaches. ( )
2. The surface of Earth changes from time to time. ( )
3. All physical factors of mechanical weathering lead to breaking down of rocks. ( )
4. When water freezes, it expands and its volume decreases. ( )

(B) What happens if ...?

Lichens growing on rocks produce acids.

....

....

3 (A) Write the scientific term of each of the following : *(5 marks)*

1. A process in which small broken rocks move from a place to another by the help of wind or water. (.....................)
2. A process in which the colors of paints of houses are changed as a result of falling of acid rains. (.....................)

3. A fan-Shaped (triangular) mass of sediments that is formed where a river enters a larger body of water like seas. (....................)
4. They are deep valleys covered by flowing water. (....................)

(B) Study the following pictures, then choose the correct answer below :


Picture (1)


Picture (2)

1. The force of water forms ....
   a. picture (1) only.
   b. picture (2) only.
   c. pictures (1) and (2).
   d. neither picture (1) nor (2).
2. Water that affects the item in picture (1) is considered as an example of ....
   a. human-made changes.
   b. artifical changes.
   c. fast changes.
   d. slow changes.

Model Exam 2

On Concept [4.1]

Total mark
15

1 (A) Choose the correct answer : *(5 marks)*

1. Sand is formed due to breaking down of ....
   a. glass. b. wood. c. rocks. d. plastic.
2. A .... is formed where a river meets a sea.
   a. delta b. mountain c. volcano d. canyon
3. Limestone caves are formed due to the combination of ....
   a. dissolved minerals. b. red-colored rusts.
   c. living organisms. d. acid rains.
4. Each of the following plays a role in erosion process, except ....
   a. blowing wind. b. water floods.
   c. sunlight. d. Earth's gravity.

(B) Give a reason for the following :

Formation of canyons is considered as an example of slow changes.

....

2 (A) Put (✓) or (✗) : *(5 marks)*

1. All changes that occur on the Earth's surface take hundreds of years. ( )
2. There are many types of sediments like sand, rocks and soil. ( )
3. Roots of plants can slowly grow over time through small cracks in rocks causing chemical weathering. ( )
4. Water can cause the two types of weathering. ( )

(B) What happens if ... ?

A river carries sediments meet a sea.

....

3 (A) Complete the following sentences : *(5 marks)*

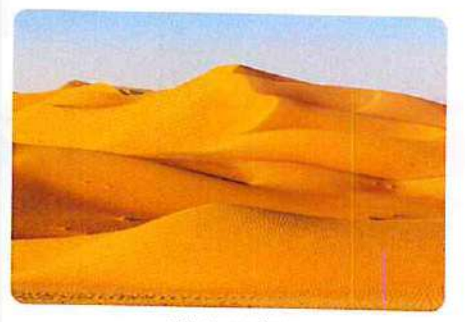
1. Breaking a statue is an example of mechanical weathering, while rusting of an iron statue is an example of .... weathering.
2. Sand grains fall on the ground when the .... carrying it stops blowing.
3. When strong wind blow in the desert, large sand .... may be formed.

4. Cracks caused by freezing of water and melting of ice represent .... weathering.

(B) Study the following pictures of sand dunes, then complete the sentences below :

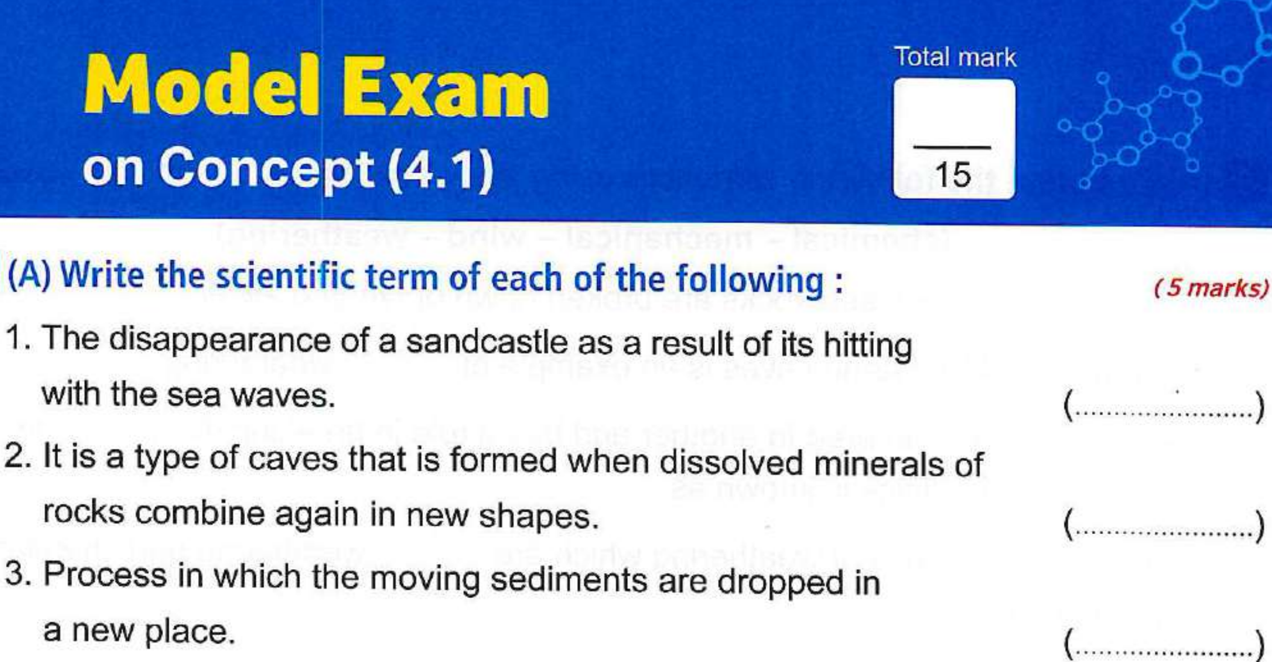


Picture (1)



Picture (2)

1. Sand dunes in picture number .... are formed by strong winds.
2. Sand dunes in picture number .... are formed by weak winds.



Model Exam
on Concept (4.1)

Total mark

$\frac{\quad}{15}$

1 **(A) Write the scientific term of each of the following :** *(5 marks)*

1. The disappearance of a sandcastle as a result of its hitting with the sea waves. (......................)
2. It is a type of caves that is formed when dissolved minerals of rocks combine again in new shapes. (......................)
3. Process in which the moving sediments are dropped in a new place. (......................)
4. A hill of sand created by the wind. (......................)

(B) What happens if ... ?

A red-colored rust is formed on some rocks.

....

....

2 **(A) Choose the correct answer :** *(5 marks)*

1. As a result of breaking down of .... , sand is formed.
   a. rubber b. plastic c. rocks d. glass
2. The breaking of rocks into smaller particles without changing their properties is called ....
   a. mechanical weathering. b. chemical weathering.
   c. deposition. d. erosion.
3. The deep narrow valley with slopes at its sides and often with water stream flowing through it is known as a ....
   a. canyon. b. mountain. c. hill. d. river.
4. Lichens produce .... on rocks that dissolve minerals found in these rocks.
   a. oxygen b. acids c. water d. rains

(B) Give a reason for the following :

Water play an important role in the formation of limestone caves.

....

....

3 (A) Complete the following sentences using the words below : *(5 marks)*

(chemical – mechanical – wind – weathering)

1. During .... process, rocks are broken down or weared away.
2. Formation of limestone caves is an example of .... weathering.
3. Air moving from an area to another and has a role in breaking down of rocks into smaller particles is known as ....
4. There are two types of weathering which are .... weathering and chemical weathering.

(B) Correct the underlined words :

1. The dropping of sediments in a new place, is known as <u>weathering</u>. (.........................)
2. Small sand dunes are formed due to <u>strong</u> winds. (.........................)

April Tests

Total mark

/15



(A) 1 Choose the correct answer : *(5 marks)*

1. Rusting of an iron statue is an example of the action of .... process.
   a. deposition
   b. erosion
   c. mechanical weathering
   d. chemical weathering
2. The change of energy in an .... is opposite to the change of energy in a wind turbine.
   a. electric bell
   b. electric heater
   c. electric iron
   d. electric fan
3. The solar energy is converted into .... energy in greenhouses.
   a. electrical
   b. sound
   c. thermal
   d. potential
4. Disappearing a part of a sandcastle due to the effect of sea waves means that all the following have changed, except ....
   a. its shape.
   b. its volume.
   c. its size.
   d. its color.

(B) What happens if ... ?

Sea waves hit coastal rocks over a long period of time.

....

2 **(A) Write the scientific term of each of the following :** *(5 marks)*

1. Rocks that are found near seashores and broken by the effect of wind and water over long periods of time. (......................)
2. A gas in air combines with iron of some rocks and causes its weakness. (......................)
3. A type of electrical energy generated by water turbines in dams. (......................)
4. The force that pulls down broken weathered rocks at mountainsides. (......................)

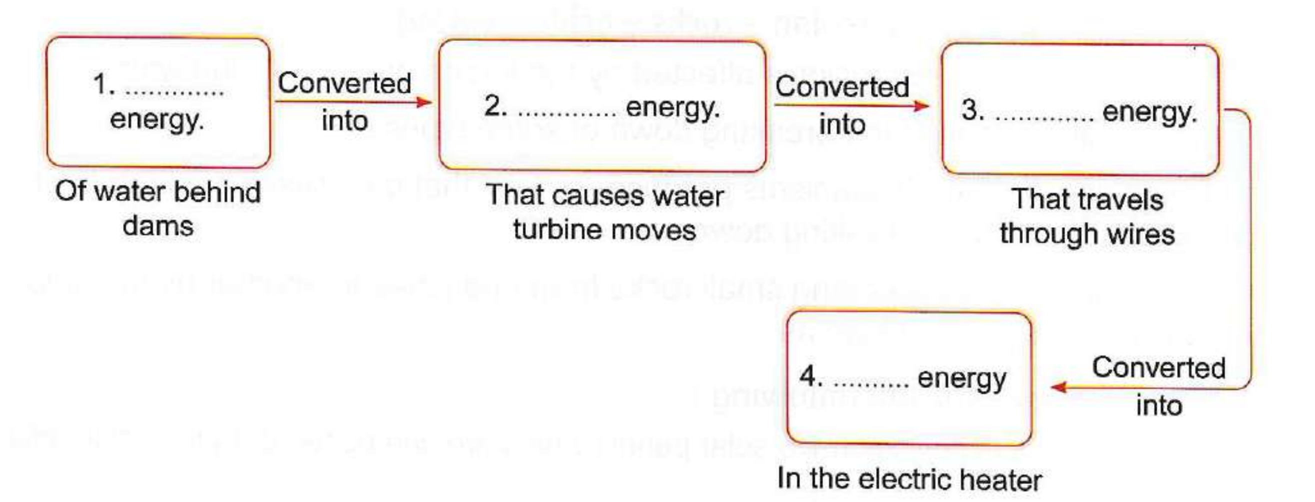
(B) Give a reason for the following :

Formation of a delta when a river meets a sea.

....

3 **(A) Complete the following energy chain of an electric heater by using the words between brackets :** *(5 marks)*

(Thermal – Kinetic – Electrical – Potential)



(B) Choose from column (B) what suits it in column (A) :

(A)	(B)
1. Coastal rocks 2. Canyons 3. Sandcastle	a. are formed by the effect of sunlight directly. b. can be disappeared in few minutes and made of sand particles on seashores. c. deep valleys that are carved by flowing of water. d. are formed near seas over many years and have needle-like parts and sloping sides.

1. .... 2. .... 3. ....

Model 2

1 (A) Complete the following sentences by using the words between brackets :

(5 marks)

(erosion – rocks – acids – water)

1. The shape of coastal rocks is affected by the forces of .... and wind.
2. The origin of sand is the breaking down of some types of ....
3. Some tiny plant-like organisms produce .... that can dissolve minerals of rocks causing their breaking down.
4. The process of transporting small rocks from one place to another by the help of water or wind is known as ....

(B) Give a reason for the following :

Some electrical devices have solar panels which are composed of many solar cells.

....

2 (A) Put (✓) or (X) :

(5 marks)

1. When iron in rock rusts, the rock becomes more stronger. ( )
2. There are many types of sediments like sand, rocks and soil. ( )
3. Wind is a nonrenewable energy resource. ( )
4. Dams are built on rivers in order to generate electrical energy. ( )

(B) What happens if ... ?

The kinetic energy of a wind that is applied on the wind turbine increases.

....

3 (A) Write the scientific term of each of the following :

(5 marks)

1. It is a type of caves that is formed when dissolved minerals of rocks combine again in new shapes. (......................)
2. A natural movement of air that is resulted from the difference in temperatures between cold air and hot air. (......................)
3. A glass building which help farmers in cold regions to plant crops which grow only in warm climate. (......................)
4. The process in which the water of rivers evaporates, then condenses forming clouds and return back to rivers through rainfalls. (......................)

(B) Correct the underlined words :

1. Limestone caves are formed by the action of <u>mechanical</u> weathering. (......................)
2. A strong wind may carry sand grains for a <u>short</u> distance. (......................)

المراجعة رقم (4)

اختبار شهر مارس





Choose the correct answer

1- In the battery of a toy car …………… energy is converted into electrical energy.
  a. Chemical
  b. Sound
  c. Light
  d. thermal

2- Curiosity rover is designed to explore ………..
  a. Earth
  b. Mars
  c. Sun
  d. Moon

3- In the hair dryer, the electrical energy is converted into ………., …………… and …………energies.
  a. Sound – thermal – kinetic
  b. Kinetic – light – chemical
  c. Thermal – light – chemical
  d. Light – sound - chemical

4- When you rub your hand together, …………….energy is converted into thermal energy.
  a. Light
  b. Kinetic
  c. Electrical
  d. sound

5- Both hair dryer and the heater produce …………….. energy.
  a. Chemical
  b. Sound
  c. Light
  d. thermal

6- The input energy in the hair dryer is the ……….. energy.
  a. Sound
  b. electrical
  c. Light
  d. thermal

7- Sound and ……………. energies are output energies when operating the mobile phone.
  a. electrical
  b. Sound
  c. Light
  d. thermal

8- The produced ……….. energy does not help the blender do its job.

a. thermal
b. Sound
c. Light
d. electrical

9- In the washing machine, the …………. energy is converted into kinetic and sound energy.

a. light
b. Sound
c. electrical
d. potential

10- Forms of fuel that are present in car fuel stations are ……………

a. Gasoline and wood
b. Natural gas and coal
c. Wood and coal
d. Gasoline and natural gas

11- ………………. is the main resource of energy in the Earth.

a. Gasoline
b. The sun
c. Natural gas
d. The moon

12- All of the following are renewable energy resources, <u>except</u> ……………

a. Natural gas
b. The sun
c. Wood
d. water

13- Wood is considered as …………………

a. Fossil fuel
b. Biofuel
c. Liquid fuel
d. Gaseous fuel

14- All of the following factors play an important role in the formation of fossil fuel, <u>except</u> ……….

a. Extreme pressure
b. Extreme heat

c. Strong wind
d. Rocks and sediments

15- All of the following are forms of fossil fuel, except ……………….

a. Water
b. Coal
c. Natural gas
d. oil

16- All of the following can be used to generate electrical energy, except …………………

a. Oil
b. Natural gas
c. Water
d. Glass

17- Air pollution is usually caused due to …………… Of fuel.

a. Cooling
b. Warming
c. Burning
d. Freezing

18- Smog causes irritation of ………… of humans.

a. Stomach and eyes
b. Eyes and lungs
c. Small intestine
d. Large intestine

19- Acid rain is formed when …………… combine with rain water.

a. Oxygen gas
b. Carbon dioxide gas
c. Dust
d. Sand

20- Solar panels use solar energy to generate ………… Energy which is used in lighting houses.

a. Sound
b. Electrical
c. Potential
d. Kinetic

21- The wind movement has ……… energy which moves the blades of windmills.

a. Kinetic
b. Solar

c. Thermal
d. Potential

22- The solar energy is converted into …………. energy in greenhouses.

a. Electrical
b. Sound
c. Thermal
d. Potential

23- The electrical energy is transmitted from wind turbines to houses through ……………..

a. Water
b. Wind
c. Wires
d. cola

24- The change of energy in an …………… Is opposite to the change of energy in a wind turbine.

a. Electric bell
b. Electric iron
c. Electric fan
d. Electric heater

25- In water turbines, the ………… Energy of water is changed into electrical energy.

a. Chemical
b. Kinetic
c. Light
d. thermal

26- the reason of flowing of river water downhill is the ………. force.

a. Friction
b. Gravitational
c. Electric
d. pushing

27- the water behind a dam stores ………… Energy.

a. Thermal
b. Potential
c. Kinetic
d. Electrical

28- The form of energy resulted from waterfalls is called ………….. energy.

a. Chemical
b. Thermal
c. Hydroelectric
d. Solar

29- River water evaporates by the help of heat produce from……………

a. The sun
b. The moon
c. Electric heater
d. Electric iron

30- In water cycle , water ……………., then it …………….. before falling in the form of rains.

a. Freezes– evaporates
b. Evaporates – condenses
c. Condense – evaporates
d. Evaporates – freezes

Put (√) or (X)

1. Energy cannot be transformed from one form to another ( ).
2. Mars rover Curiosity cannot move without electrical energy ( ).
3. Most of energy chains start with the energy of the moon ( ).
4. In the soap dispenser, potential energy is converted into kinetic energy ( ).
5. Both electric bulb and the electric heater produce thermal energy ( ).
6. The input energy in hair dryer is the chemical energy ( ).
7. Both coal and wood produce energy when they are burned ( ).
8. Water and gasoline are two renewable resources of energy ( ).
9. Turning off lights that we do not need is a way to conserve electricity ( ).
10. Acid rain helps trees to survive ( ).
11. As a result of global warming, the temperature on the Earth increases ( ).
12. Both wind movement and water flow have kinetic energy ( ).
13. In wind turbines, the kinetic energy is converted into chemical energy ( ).
14. Dams are built on rivers to control the wind flow ( ).
15. The hydroelectric energy is produced by using wind turbines ( ).

Give reason

1. Mars rover Curiosity operates for a long period of time on Mars without any need to be recharged.

   ----

2. When you rub your hands together, you feel warm.

   ----

3. Thermal energy in a mobile phone is considered as a waste energy.

   ----

4. Water is considered as renewable energy resource.

   ----

5. We must turn off lights that we don't need.

   ----

6. Smog of cars is very dangerous to human health.

   ----

7. Acid rain has a bad effect on buildings in cities.

   ----

8. Some electric devices have solar panels.

   ----

9. Hydroelectric dams are built on rivers.

   ----

10. Wind turbines used to generate electricity.

11| Coal is considered as a fossil fuel.

....

Complete the following sentences.

1| The main source of energy on earth is ……………………………

2| Battaries in toy car convert chemical energy into ……………… energy.

3| In the hair dryer, Electrical energy converted into ……………………………. , ……………………….

and ……………………. .

4| The distance between Mars and Earth is around ……………………………. Mkm .

5| Curiosity is a robot that designed to discover…………………

6| The input energy in washing machine is ……………………..

7| In electric power station , ……………………….is burned to produce thermal energy.

8| …………… energy is stored in the food we eat

9| In the hand bell ……………………energy converts into ……………………energy.

10| …………………………..is a biofuel that made up of wood.

Write the scientific term.

1| A robot that established to discover mars planet.

( )

2| Any substance that burning to produce thermal energy.

( )

3| A device that converts electrical energy into kinetic and sound energy.

( )

4| The energy used to play a drum.

( )

5| They are fuels that formed from the remains of plants and animals that were buried and decomposed over a long period of time.

( )

. 6| They are fuels that made from living organism that can be planted.

( )

7| It's a natural material that is used faster than it can be replaced.

( )

8| It's a natural material that can be replaced soon after it is used

( )

9| A mill that used water to crush grains.

( )

10| A type of mirrors that used to collect sunlight and we can use it in cooking.

( )

حمل الآن

مجانا وحصريا

المراجعة رقم (5)

اختبار شهر مارس







(A) Write the scientific term of each of the following:

4 Main energy which is produced from both electric mixer and manual mixer. (.....................)

2. Huge bodies in the space made mostly of hydrogen and helium gases. (.....................)

3. A mill that uses the power of flowing air to generate electricity. (.....................)

4. A turbine in which the kinetic energy of moving water is used to generate hydroelectricity. (.....................)

(B) Give a reason for the following :

Dams are built on rivers.

....

....

(A) Correct the underlined words :

1. Thermal energy and <u>sound</u> energy are produced from the Sun and reach the Earth. (.....................)

2. When air blows into the wind turbine with a large force, the blades spin <u>slower</u>. (.....................)

3. Solar panels use <u>sound</u> energy to generate electricity. (.........)

4. During the flowing of river's water downhill, the <u>chemical</u> potential energy of water is converted into kinetic energy. (.....)

(8) What happens if ... ?

You look directly at the Sun.

....

....

B (A) Put (√) or (×) :

1. Both wind movement and water flow has kinetic energy.(   )
2. The Sun does not have a solid surface. (   )
3. Wind is a renewable energy resource. (   )
4. The flow of water can't be controlled to generate electricity in dams. (   )

(B) Complete the following energy chain of a television by using the words between brackets:

(Electrical - Sound - Thermal - Potential - Light - Kinetic)

1. .... energy. of water in dams
converted into
2. .... energy. that cause water turbine moves
converted into
3. .... energy. that travels through wires
converted into
4. .... and .... energies that do the main function of television.
5. .... energy as a wasted energy.

(A) Choose the correct answer:

1. In the water cycle, water .... then it.............. before falling in the form of rains.

a. freezes - evaporates

b. evaporates - condenses

C. evaporates - freezes

d. condenses - evaporates

2. The solar energy is converted into .... energy in greenhouses.

a. electrical b. sound

c. thermal d. potential

3. The reason of flowing of river water downhill is the .... force

a. pushing b. friction

c. gravitational d. electrical

4. Some types of lamps depend on .... as a renewable energy resource in order to do its function.

a. sunlight b. petrol

c. coal d. natural gas



2 (A) Write the scientific term of each of the following :

1. The disappearance of a sandcastle as a result of its hitting with the sea waves. ( )
2. It is a type of caves that is formed when dissolved minerals of rocks combine again in new shapes. ( )
3. Process in which the moving sediments are dropped in a new place. ( )
4. A hill of sand created by the wind. ( )

(B) What happens if ...?

A red-colored rust is formed on some rocks.

....

....

2 (A) Choose the correct answer :

1. As a result of breaking down of .... , sand is formed.

a. rubber. b. plastic. c. rocks. d. glass

2. The breaking of rocks into smaller particles without changing their properties is called ....

a. mechanical weathering.
b. chemical weathering.
c. deposition.
d. erosion.

3. The deep narrow valley with slopes at its sides and often with water stream flowing through it is known as a ....

a. canyon.
b. mountain.
c. hill.
d. river.

4. Lichens produce .... on rocks that dissolve minerals found in these rocks.

a. oxygen.
b. acids.
c. water.
d. rain

(B) Give a reason for the following :

Water play an important role in the formation of limestone caves.

....

....

3 (A) Put (V) or (x) :

1. All changes that occur on the Earth's surface take hundreds of years. (   )

2. There are many types of sediments like sand, rocks and soil. (   )

3. Roots of plants can slowly grow over time through small cracks in rocks causing chemical weathering. (   )

4. Water can cause the two types of weathering. (   )

(B) Complete the following sentences by using the words between brackets :

(rocks - wind - water)

1. Air moving from an area to another and has a role in breaking down of rocks into smaller particles is known as ……………………

2. The shape of coastal rocks is affected by the forces of …………………… and wind.

3. The origin of sand is the breaking down of some types of ……………………

4 **(A) Complete the following sentences :**

1. During …………………… process, rocks are broken down or weared away.

2. Formation of limestone caves is an example of .... weathering.

3. Sediments are mixed with the remains of .... and .... forming layers at the bottom of oceans and lakes.

4. There are two types of weathering which are .... and ....

(B) Correct the underlined words:

1. The dropping of sediments in a new place, is known as freezing. (   )

2. Small sand dunes are formed due to strong winds. (   )

المراجعة رقم (6)

اختبار شهر مارس





Give the reason.

1- **Smog of cars is very dangerous to human health.**

Because smog causes irritation of human's eyes and lungs

2- **Farmers must decrease the use of pesticides**

Because pesticides cause soil and water pollution

3- **Increases the burning of fossil fuel causes acid rain**

Because burning fossil fuels produces carbon dioxide gas which combines with water in air forming acid rain

4- **Global warming occurs due to the increase of burning coal and oil**

Because burning coal and oil produces carbon dioxide gas that forms a layer in atmosphere that traps heat on Earth causing rise in Earth's temperature

5- **Acid rain has a bad effect on buildings in cities**

Because it dissolves the building rocks

6- **Fossil fuels cannot be replaced as quickly as they are used.**

Because they are formed in millions of years

7- **To keep the air clean, we must replace fossil fuels with renewable resources of energy.**

Because when burning fossil fuels, they produce smog that pollutes the air.





8- **Humans used windmills and watermills from hundreds of years ago.**

Because they were used to crush grains to make flour

9- **Sometimes the sun is not visible in the sky, but you can feel its warmth.**

Because the atmosphere, land and water absorb the energy of the sun causing an increase in the temperature.

10- **Kinetic energy of wind affects the speed of wind turbine blades rotation.**

Because when kinetic energy of wind increases, blades rotate faster, and wind turbine generates more electricity

11- **Hydroelectric dams are built on rivers.**

To control the water flow and increase the potential energy of the water to generate electricity.

12- **Water turbines are placed in waterfalls or dam's areas.**

Because the flow of falling water helps water turbines to rotate and generate electricity

13- **Some electrical devices have solar panels which are composed of many solar cells**

To absorb solar energy and convert it into electrical energy

14- **Sometimes the wind turbines are useless**

Because when the wind does not blow, they cannot work or generate electricity

15- **Iron in rocks may rust.**

Because of the reaction between iron and oxygen

16- **Water plays an important role in the formation of limestone caves.**

Because water dissolves minerals in rocks then the dissolved minerals combine again forming new shapes

17- **Formation of canyons is considered as an example of slow changes**

Because they are formed due to the slow changes that happened to their rocks over many years

18- **Formation of delta when a river meets a sea**

Because the sediments are deposited at the end of the river

19- **Formation of sand dunes on beach**

Because they are formed by the effect of weak winds

20- **Formation of large sand dunes at western desert**

Because they are formed by the effect of strong winds

What happens if?

1- **Pesticides mix with water of canals and rivers.**

It will pollute soil and water.

2- **Factories decrease their use of chemicals.**

Air, water and soil pollution will decrease.





3- **The amount of fossil fuels if people don't conserve their usage.**

Fossil fuel will run out.

4- **Acid rain fall on buildings for a long period of time**

It causes dissolving of the rocks used for building

5- **People decrease burning of fossil fuel**

the amount of carbon dioxide gas in air will decrease

6- **The Earth's temperature if we use renewable resources of energy instead of fossil fuels.**

The Earth temperature will not increase.

7- **Wind does not blow in an area that contains many modern wind turbines.**

The blades of wind turbines will not move and will not generate electricity.

8- **Sunlight falls on solar panels.**

The solar energy is converted to electrical energy.

9- **The kinetic energy of a wind that is applied on the wind turbine increases.**

The blades rotate faster and generate more electricity.

10- **Water turbines are placed in a dam.**

Water turbines rotate and generates electricity.





11- Potential energy of water increases behind a dam that has water turbines.

It is converted into more kinetic energy that rotates the water turbines and generates electricity.

12- Water of seas and rivers evaporates then condensates in the atmospheric air.

Clouds are formed and rain falls.

13- Sunlight falls on a green house

The green house converts the radiant energy from the sun ti thermal energy

14- There is difference in temperature of air around Earth

It causes the movement of air and wind blowing

15- Lichens growing on rocks produce acids.

Acid will dissolve minerals in rocks and break them down.

16- A red colored rust is formed on some rocks.

The rocks become weak and easily break down.

17- A river carries sediments meet a sea.

Delta is formed.



كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9



خطوة 1

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة دي - ثم نكتب 9

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6